WE CLAIM:

1. A layer configuration comprising a layer of a nano-porous n-type metal oxide semiconductor with a band-gap of greater than 2.7 eV, an adsorbed cationic spectral sensitizer and a coadsorber capable of enhancing the adsorption of a cationic spectral sensitizer on a n-type metal oxide semiconductor.

2. Layer configuration according to claim 1, wherein said coadsorber is an ortho-dihydroxy-benzene compound.

3. Layer configuration according to claim 2, wherein said benzene compound with a nitrile group substituted on the same benzene ring as said ortho-dihydroxy-groups.

4. Layer configuration according to claim 1, wherein said coadsorber is selected from the group consisting of 2,3-dihydroxy-benzonitrile, 3,4-dihydroxy-benzonitrile, 3,4,5-trihydroxy-benzonitrile, 3,4-dihydroxy-4'-cyano-benzophenone, 4-nitro-catechol, (3,4-dihydroxy-phenyl)methyl-sulphone, 1,2-dihydroxy-anthraquinone, 3,4-dihydroxy-anthraquinone-2-sulphonic acid, 4,5-dihydroxy-benzene-1,3-disulphonic acid, 6,7-dihydroxy-naphthalene-2-sulphonic acid, 3,4-dihydroxy-benzoic acid and catechol.

5. Layer configuration according to claim 1, wherein said coadsorber is selected from the group consisting of 3,4-dihydroxy-benzonitrile, 3,4,5-trihydroxy-benzonitrile, 1,2-dihydroxy-anthraquinone, (3,4-dihydroxy-phenyl)methylsulphone, 4,5-dihydroxy-benzene-1,3-disulphonic acid and catechol.

6. Layer configuration according to claim 1, wherein said cationic spectral sensitizer is a cyanine dye.

7. A photovoltaic device comprising a layer configuration comprising a layer of a nano-porous n-type metal oxide semiconductor with a band-gap of greater than 2.7 eV, an adsorbed cationic spectral sensitizer and a coadsorber capable of enhancing the adsorption of a cationic spectral sensitizer on a n-type metal oxide semiconductor.

8. A solar cell comprising a layer configuration comprising a layer of a nano-porous n-type metal oxide semiconductor with a band-gap of greater than 2.7 eV, an adsorbed cationic spectral sensitizer and a coadsorber capable of enhancing the adsorption of a cationic spectral sensitizer on a n-type metal oxide semiconductor.

9. A process for preparing a layer configuration, comprising a layer of a nano-porous n-type metal oxide semiconductor with a band-gap of greater than 2.7 eV, an adsorbed cationic spectral sensitizer and a coadsorber capable of enhancing the adsorption of a cationic spectral sensitizer on a n-type metal oxide semiconductor, comprising the steps of: providing a layer of a nano-porous n-type metal oxide semiconductor with a band-gap of greater than 2.7 eV, adsorbing a coadsorber on said nano-porous n-type metal oxide semiconductor layer and adsorbing a cationic spectral sensitizer on said nano-porous n-type metal oxide semiconductor layer.

10. Process according to claim 9, wherein said adsorption of said cationic spectral sensitizer on said nano-porous n-type metal oxide semiconductor layer is carried out simultaneously with said adsorption of said coadsorber on said nano-porous n-type metal oxide semiconductor layer.

11. Process according to claim 9, wherein said adsorption of said cationic spectral sensitizer on said nano-porous n-type metal oxide semiconductor layer is carried out after said adsorption of said coadsorber on said nano-porous n-type metal oxide semiconductor layer.